To prevent without over-protecting
- children and senior citizens injured during outdoor activities

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Akademisk avhandling

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Avhandlingen kommer att förvaras på svenska.

**Title**  
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**Abstract**

**Background**: Injuries are a common public health problem. Children and senior citizens are two groups of special interest as they are injured more frequently than the general population and their body constitution makes them more vulnerable. Outdoor environments influence the risk of injury, as people are generally physically active when outdoor. There is a need to highlight the complexity of balancing injury risk and the healthy benefits of outdoor activities among these two groups.

**Aim**: The overall aim of this thesis was to investigate injuries among children and senior citizens sustained during outdoor activities and explore experiences and perceptions on risk and possibilities to increase safety in the outdoor environment.  

**Methods**: The studies were performed in northern Sweden. The participants were children through the age of 12 and senior citizens aged 65 and older. Data were collected from an Injury Data Base (IDB) complemented with a study-specific questionnaire. Data were also collected from observations, focus-group interviews with children, teachers and senior citizens.  

**Results**: 795 children attended the emergency department from 2007 through 2009 and were registered in the IDB with non-minor injuries. The most commonly reported activities contributing to injuries were play, sport, and transport. Other factors contributing to the incident were often related to the ground surface. Contributing products were, for example, trampolines, climbing frames, bicycles, and downhill skis. Risky play at schoolyards was climbing high in trees, speeding down slides, or fighting with sticks in the woods. Different perspectives on risk and safety influenced or restricted the children’s outdoor play activities.  

300 senior citizens were registered in the IDB after injuries from pedestrian falls from January 2009 through April 2011. Women were overrepresented. Sixty percent suffered non-minor injuries. Fracture was the most common injury type. Environmental factors, especially ice, snow, and irregularities on the ground surface were the most commonly described causes to the injury incidents. As the incidents happened in public transport areas, the respondents indicated that they hold the local authorities responsible for poor sidewalk and road maintenance. They also admitted their own responsibility in preventing similar incidents by changing their behavior and using safety products. Senior citizens described how they needed to adjust to age-related changes when outdoors, for example, by taking responsibility and using common sense. Facilitating possibilities for outdoor mobility increased with the feelings of safety within the outdoor environment and when using safety devices. To the contrary, fear of falling, shortcomings of safety devices, and dangerous elements such as ice, snow, and interactions with bicyclists constrained outdoor mobility.

**Conclusion**: Non-minor injuries among children and senior citizens that are sustained during outdoor activities must be a focus of injury prevention. Different perspectives on risk and safety influence children’s outdoor play at the schoolyard and senior citizens’ outdoor mobility. There is a need for balance between teachers’ common sense knowledge and the knowledge base of injury prevention. In the same manner, there is a need for balance between healthy activities and an acceptable injury risk for participating in outdoor activities. Nurses are well suited to work with this complexity and to optimize these efforts both at schools and in other public settings.

**Keywords**

Injuries, Children, Old people, Risk, Safety, Outdoor, Healthy activities, Prevention